Heng Zhou

List of Publications by Year
in descending order

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48 papers	402 citations	759233 12 h-index	888059 17 g-index
48 all docs	48 docs citations	48 times ranked	141 citing authors

#	Article	IF	Citations
1	DEM Study of Solid Flow in COREX Shaft Furnace with Areal Gas Distribution Beams. ISIJ International, 2016, 56, 245-254.	1.4	43
2	Experimental Study on Burden Descending Behavior in COREX Shaft Furnace with AGD Beams. Steel Research International, 2015, 86, 1073-1081.	1.8	26
3	Discrete Particle Simulation of Solid Flow in a Large-Scale Reduction Shaft Furnace with Center Gas Supply Device. ISIJ International, 2018, 58, 422-430.	1.4	20
4	Influence of cohesive zone shape on solid flow in COREX melter gasifier by discrete element method. Journal of Iron and Steel Research International, 2015, 22, 304-310.	2.8	19
5	DEM Simulation of Solid Flow Including Asymmetric Phenomena in COREX Shaft Furnace. Journal of Iron and Steel Research International, 2015, 22, 1098-1106.	2.8	18
6	Influence of Burden Distribution on Temperature Distribution in COREX Melter Gasifier. Journal of Iron and Steel Research International, 2013, 20, 30-35.	2.8	15
7	Analysis of Cohesive Particle Percolation in a Packed Bed Using Discrete Element Method. ISIJ International, 2018, 58, 43-51.	1.4	15
8	DEM simulation of cubical particle percolation in a packed bed. Powder Technology, 2020, 361, 306-314.	4.2	15
9	Numerical Investigation of Coke Collapse and Size Segregation in the Bell-less Top Blast Furnace. ISIJ International, 2018, 58, 2018-2024.	1.4	14
10	Numerical simulation of the effect of burden profile on gas flow in a COREX shaft furnace. Powder Technology, 2020, 376, 537-548.	4.2	14
11	Numerical study of fine particles behaviors in a packed bed with lateral injection using CFD-DEM. Powder Technology, 2021, 392, 317-324.	4.2	13
12	Three-dimensional DEM Study of Coal Distribution in the Melter Gasifier of COREX. Steel Research International, 2016, 87, 1543-1551.	1.8	12
13	Improving the Softening and Melting Properties of Ferrous Burden with High Al₂O₃ Content for Blast Furnace by Ore Blending. ISIJ International, 2020, 60, 1504-1511.	1.4	12
14	Flow and penetration behaviours of liquid phase on iron ore substrate and their effects on bonding strength of sinter. Ironmaking and Steelmaking, 2020, 47, 405-416.	2.1	11
15	Discrete element method study of solid descending and residence properties in COREX shaft furnace with center gas supply device. Journal of Iron and Steel Research International, 2019, 26, 669-678.	2.8	10
16	Effect of Tiâ€“V Magnetite Concentrate Pellet on the Strength of Green Pellets and the Quality of Sinter by Composite Agglomeration Process (CAP). ISIJ International, 2021, 61, 2211-2219.	1.4	10
17	Numerical simulation of coke collapse and its optimization during burden charging at the top of bell-less blast furnace. Powder Technology, 2021, 389, 155-162.	4.2	10
18	Treatment of vanadiumâ€“titanium magnetite based on composite agglomeration process (CAP). Ironmaking and Steelmaking, 2021, 48, 477-482.	2.1	9

#	Article	IF	Citations
19	Increasing the Softening as well as Melting Behaviors for Iron Ore Materials within the Blast Furnace Cohesive Zone through the High-temperature Interactivity. ISIJ International, 2020, 60, 1461-1468.	1.4	9
20	The Mechanism of the Effect of Al2O3 Content on the Liquid Phase Fluidity of Iron Ore Fines. Processes, 2019, 7, 931.	2.8	8
21	Numerical Simulation Study on the Effects of Co-Injection of Pulverized Coal and Hydrochar into the Blast Furnace. Sustainability, 2022, 14, 4407.	3.2	7
22	Experimental study and numerical simulation of dust accumulation in bustle pipe of COREX shaft furnace with areal gas distribution beams. Ironmaking and Steelmaking, 2019, 46, 980-986.	2.1	6
23	Effects of Blast Furnace Main Trough Geometry on the Slagâ€Metal Separation Based on Numerical Simulation. Steel Research International, 2019, 90, 1800383.	1.8	6
24	A Mathematical Model of COREX Process with Top Gas Recycling. Steel Research International, 2021, 92, 2000292.	1.8	6
25	Influence of center gas supply device on gasâ€“solid flow in COREX shaft furnace through DEMâ€“CFD model. International Journal of Chemical Reactor Engineering, 2020, 18, .	1.1	6
26	Solid Flow in a Shaft Furnace in Smelting Reduction Process under Circumferential Imbalance Conditions. Steel Research International, 2017, 88, 1700212.	1.8	5
27	Analysis of Coke Oven Gas Injection from Dome in COREX Melter Gasifier for Adjusting Dome Temperature. Metals, 2018, 8, 921.	2.3	5
28	Multi-Objective Optimization of Cost Saving and Emission Reduction in Blast Furnace Ironmaking Process. Metals, 2018, 8, 979.	2.3	5
29	Numerical Analysis of Effects of Different Blast Parameters on the Gas and Burden Distribution Characteristics Inside Blast Furnace. ISIJ International, 2020, 60, 856-864.	1.4	5
30	Numerical study on the influence of center gas supply device on gas-solid residence time distribution in COREX shaft furnace. Particulate Science and Technology, 2021, 39, 887-895.	2.1	5
31	Experimental Study on Charging Process in the COREX Melter Gasifier. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 1740-1749.	2.1	4
32	Numerical Simulation of Effects of Different Operational Parameters on the Carbon Solution Loss Ratio of Coke inside Blast Furnace. Processes, 2019, 7, 528.	2.8	4
33	Microstructure and physical properties of a mullite brick in blast furnace hearth: influence of temperature. Ironmaking and Steelmaking, 2020, , 1-7.	2.1	4
34	Numerical Analysis of Blast Furnace with Injection of COREX Export Gas After Removal of CO₂. ISIJ International, 2021, 61, 174-181.	1.4	4
35	Influence of temperature on the microstructure and physical properties of corundum refractory brick in the blast furnace hearth. Ironmaking and Steelmaking, 2020, 47, 263-270.	2.1	3
36	The Influence of the Porous Structure of Activated Coke for the Treatment of Gases from Coal Combustion on Its Mechanical Strength. Processes, 2020, 8, 900.	2.8	3

#	Article	IF	Citations
37	BP neural network prediction for Si and S contents in hot metal of COREX process based on mathematical analysis and Dengâ€™s correlation. Metallurgical Research and Technology, 2021, 118, 514.	0.7	3
38	The Macroscopic Flow direction and Microscopic Distribution of Mg in Sintered Products and Its Influence. Metals, 2018, 8, 1008.	2.3	2
39	Development and application of coke oven gas spraying on sinter bed. Journal of Iron and Steel Research International, 2020, 27, 617-623.	2.8	2
40	Influence of top gas recycling technology on operation parameters and CO2 emission of COREX process. Ironmaking and Steelmaking, 2021, 48, 693-702.	2.1	2
41	Dynamic analysis of blockage behavior of fine particles in a packed bed by discrete element method. Ironmaking and Steelmaking, 2021, 48, 860-867.	2.1	2
42	Comprehensive evaluation of the blast furnace status based on data mining and mechanism analysis. International Journal of Chemical Reactor Engineering, 2021, .	1.1	2
43	DEM study of the angle of repose and porosity distribution of cylindrical particles with different lengths. International Journal of Chemical Reactor Engineering, 2021, .	1.1	2
44	Application of statistical analysis, Dengâ€™s relevancy and BP neural network for predicting molten iron sulfur in COREX process. International Journal of Chemical Reactor Engineering, 2020, 18, .	1.1	2
45	Numerical Simulation of Combustion Characteristics in the Dome Zone of the COREX Melter-Gasifier: The Effect of Rising Gas. Industrial & Engineering Chemistry Research, 2022, 61, 931-941.	3.7	2
46	Separation of Cerium Oxide Abrasive and Glass Powder in an Abrasive-Glass Polishing Waste by Means of Liquidâ€“Liquidâ€“Powder Extraction Method for Recovery: A Comparison of Using a Cationic and an Anionic Surfactant Collector. Sustainability, 2020, 12, 4662.	3.2	1
47	Effects of cylindrical particle properties on pile formation. Particulate Science and Technology, 0, , 1-10.	2.1	1
48	Corrosion behaviour and corrosion mechanism of corundum block and mullite block in hearth of blast furnace. Metallurgical Research and Technology, 2021, 118, 511.	0.7	0